

AN 1990-004172 [01] WPIDS
 CR 1983-762435 [37]
 DNC C1990-001878
 TI Oxidation resistant **austenitic** stainless steel pipes - comprising
 silicon manganese, chromium, nickel, sulphur, nitrogen, phosphorus, etc..
 DC M27
 PA (NIKN) NIPPON KOKAN KK
 CYC 1
 PI JP 01287249 A 19891117 (199001)* 10
 JP 04053943 B 19920828 (199239) 16<--
 ADT JP 01287249 A JP 1988-327984 19880511; JP 04053943 B Div ex JP 1982-14720
 19820203, JP 1988-327984 19820203
 FDT JP 04053943 B Based on JP 01287249
 PRAI JP 1982-14720 19820203; JP 1988-327984 19880511
 AB JP 01287249 A UPAB: 19930928

Austenitic stainless steel pipes comprise (by weight) 0.05-0.10%
 C, up to 1.0% Si, up to 2.0% Mn, 15-26%
 Cr, 10-35% Ni, up to 0.02% S, up to 0.05% N,
 up to 0.04% P, 0.4-1.1% Nb, at least one of up to 3.0% Mo, up to
 3.0% W, up to 3.0% Cu, up to 3.0% V, up to 0.5%
 Al, up to 0.15% Ti and up to 0.15% Zr, and balance Fe
 and incidental impurities.

The pipes have a coarse grain structure of average grain size Number up
 to No.6 and a fine coarse grain structure of average grain size Number at
 least No.7 to a depth of 50-300 microns from the inside face.

ADVANTAGE - Steam oxidation resistance and high temp strength are
 improved.

0/6

1, 2, 5, 6

$\leq 3.0 \text{ Mo}$

$\leq 3.0 \text{ W}$

$\leq 0.15 \text{ Ti}$

$\leq 0.15 \text{ Zr}$

0.05-0.1 C

$\leq 1. \text{ Si}$

$\leq 2 \text{ Mn}$

$\leq 0.04 \text{ P}$

$\leq 0.02 \text{ S}$

15-26 Cr

10-35 Ni

$\leq 3.0 \text{ Cu}$

0.4-1.1 Nb

$\leq 3.0 \text{ V}$

$\leq 0.5 \text{ Al}$

$\leq 0.05 \text{ N}$

0

Fe